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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/507,330

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Mathias Destarac

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EXAMINER

TSOY, ELENA

ART UNIT

PAPER NUMBER

1792

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/507,330	<b>Applicant(s)</b> DESTARAC ET AL.	
	<b>Examiner</b> Elena Tsoy	<b>Art Unit</b> 1792	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 10 September 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 40-64 is/are pending in the application.
- 4a) Of the above claim(s) 40-57 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 58-64 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

***Election/Restrictions***

Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group I, claim(s) 40-57, drawn to a process for coating a metal surface.

Group II, claims 58-64, drawn to a process for the application of a film-forming composition to a metal surface.

The inventions listed as Groups I-II do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical feature for the following reasons: the special technical feature common to all the independent claims is a block copolymer of claim 40, which is shown to be anticipated by EP 1156089 (See claims, page 10, P56, 59). For these reasons the unity does not exist between the groups of claims.

During a telephone conversation with Dwight M. Bennet, II on June 27, 2008 a provisional election was made without traverse to prosecute the invention of Group II, claims 58-64. Affirmation of this election must be made by applicant in replying to this Office action. Claims 40-57 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

### ***Abstract***

The abstract of the disclosure does not commence on a *separate* sheet in accordance with 37 CFR 1.52(b)(4). A new abstract of the disclosure is required and must be presented on a separate sheet, apart from any other text.

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 61-62 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 61 recites a limitation “polyurethane of at least one polymer”, which renders the claim indefinite because *polyurethane* is one specific polymer, and thus, it is not clear how it would comprise more than one polymer.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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4. Claims 58-64 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vogt et al (US 6191056) in view of Simpson et al (US 6287706) and Maeda et al (US 6146806), further in view of Berge et al (EP 1156089).

Vogt et al discloses a process for application to a metal coated fabric of a primer coating and then of a polyurethane coating (See column 2, lines 51-67) comprising applying an aqueous primer coating composition (claimed step A), drying the primer coated fabric for 3 minutes at 250<sup>0</sup>F (claimed step B), applying to the primer a polyurethane dispersion (claimed step C) (See Example 2). The metal coating is in the form of discrete particles of metal (See column 2, lines 38-39) such as *aluminum* (See column 4, lines 54-56). The primer coating composition comprises a (random) copolymer comprising at least two different monomers: (i) a *phosphate*-containing vinyl monomer and (ii) a second, separate vinylic monomer containing at least one reactive group (See column 2, lines 37-51) which is capable of covalently reacting with the polyurethane latex coating (See column 3, lines 47-67). The phosphate group appears to either react or complex with the metal particles themselves forming a bond which is particularly strong and difficult to break (See column 3, lines 45-60).

Vogt et al fails to teach that a primer is block copolymer (Claim 58).

Simpson et al (US 6287706) (See column 9, line 66 to column 10, line 2) and Maeda et al (US 6146806) (See column 8, lines 55-60) teach that a random copolymer is functionally equivalent to a block copolymer. In other words, properties of a polymer composition depend basically on monomer units themselves, not on how they are combined, i.e. not on a particular polymer structure.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have used a block copolymer comprising the same monomer units as in a random copolymer in Vogt et al instead of the random copolymer with the expectation of providing the same desired benefits since Simpson et al and Maeda et al teach that properties of a polymer composition depend basically on monomer units themselves, not on how they are combined, i.e. not on a particular polymer structure.

Berge et al teaches that the addition of a neutralized phosphated segmented (block) copolymer dispersed in an aqueous carrier to aqueous metallic flakes such as aluminum flakes containing coating composition provides improved glamour. *Generation of hydrogen gas is substantially reduced* since the phosphorous moiety in the block copolymer passivates the aluminum flakes, used to produce the glamour. The block copolymer is provided with hydrophobic and nonionic hydrophilic segments. See Abstract. Clearly, the generation of hydrogen gas is substantially reduced since the phosphorous moiety in the block copolymer either reacts or complexes with the aluminum flakes forming strong bonds which is particularly as evidenced by Vogt et al (See column 3, lines 45-60). In other words, Berge et al teaches that phosphated block copolymer is suitable for bonding to aluminum surface.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have used phosphated block copolymer in a primer of Vogt et al instead of phosphated random copolymer with the expectation of providing the desired strong adhesion of the primer to the metal coated fabric since Berge et al teaches that phosphated block copolymer is suitable for reducing generation of hydrogen gas from aluminum flakes in water.

It is held that the selection of a known material based on its suitability for its intended use supported a prima facie obviousness determination in *Sinclair & Carroll Co. v. Interchemical Corp.*, 325 U.S. 327, 65 USPQ 297 (1945). See MPEP 2144.07.

Therefore, one of ordinary skill in the art would have reasonable expectation of success in using a block copolymer in a primer in Vogt et al instead of a random copolymer.

As to claims 59-60, Vogt et al teaches that the *preferred* polyurethane composition is a waterborne aliphatic or aromatic polymer composition (See column 4, lines 62-65). Thus, Vogt et al does not limit its teaching to waterborne PU compositions. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have used organic solvent based PU composition since it is well known in the art that either waterborne or organic solvent based PU compositions are conventionally used in the art.

As to claim 63, Vogt et al teaches that drying the PU coating for 4 minutes at 350<sup>0</sup>F (claimed step D) (See Example 2).

As to claim 64, it is the Examiner's position that PU coating composition is an adhesive composition.

5. Claim 60 is rejected under 35 U.S.C. 103(a) as being unpatentable over Vogt et al in view of Simpson et al and Maeda et al, further in view of Berge et al, and further in view of Chen (US 5306764).

The cited prior art is applied here for the same reasons as above. As was discussed above, Vogt et al teaches that the *preferred* polyurethane composition is a waterborne aliphatic or aromatic polymer composition (See column 4, lines 62-65). Thus, Vogt et al does not limit its

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teaching to waterborne PU compositions. Vogt et al does not expressly teach that organic solvent based PU compositions may be also used.

Chen teaches that water dispersible polyurethane resins can be used to replace the *conventional*, organic solvent based polyurethane resins in industrial applications (See column 5, line 67 to column 6, line 4) such as coating fabrics (See column 5, lines 50-53).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have used *conventional*, organic solvent based polyurethane resins since it is well known in the art that organic solvent based PU compositions are conventionally used in the art coating fabrics, as taught by Chen.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elena Tsoy whose telephone number is 571-272-1429. The examiner can normally be reached on Monday-Friday, 9:00AM - 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Meeks can be reached on 571-272-1423. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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Elena Tsoy, Ph.D.

Primary Examiner

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July 3, 2008

/Elena Tsoy /

Primary Examiner, Art Unit 1792